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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/578,028

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Kyoung-Ju Shin

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06/23/2009

Haynes and Boone, LLP

IP Section

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EXAMINER

NGUYEN, THANH NHAN P

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/578,028	<b>Applicant(s)</b> SHIN ET AL.	
	<b>Examiner</b> THANH-NHAN P. NGUYEN	<b>Art Unit</b> 2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 June 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-7 is/are allowed.
- 6) ☒ Claim(s) 8-12 is/are rejected.
- 7) ☒ Claim(s) 13 and 14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 April 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Drawings*

The drawings are objected to because in Fig. 3, "*lihgt*" should have been "*light*". Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 103***

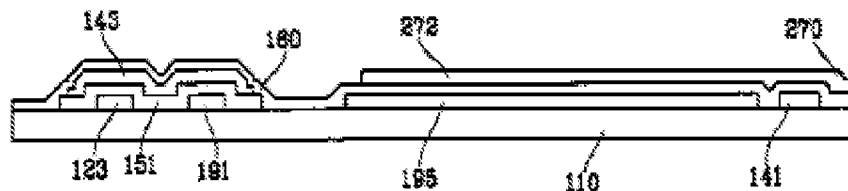
The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 8-12 are rejected under 35 U.S.C. 103(a) as being obvious over Oh et al (US 7460192).**

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

Oh et al disclose (Figs. 2 and 3) a thin film diode array panel comprising:



**FIG.3**

- an insulating substrate (110)
- first redundant gate lines (141) including a first input electrode (123) and made of an opaque conductor
- second redundant gate lines (142) including a second input electrode (124) and made of an opaque conductor
- first and second contact electrodes (191 and 192) formed on the insulating substrate and made of an opaque conductor

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- an insulating layer (151, 152) formed on the first and second input electrodes and the first and second contact electrodes
- a first floating electrode (143) formed on the insulating layer (151) and overlapping the first input electrode (123) and the first contact electrode (191)
- a second floating electrode (144) formed on the insulating layer (152) and overlapping the second input electrode (124) and the second contact electrode (192)
- a pixel electrode (190) connected to the first and second contact electrodes

Oh et al lack disclosure of a first gate line formed at least partially directly on the first redundant gate line; a second gate line formed at least partially directly on the second redundant gate line.

However, it was well known in the art to form a first gate line formed at least partially directly on the first redundant gate line; a second gate line formed at least partially directly on the second redundant gate line, or in other words, to form double-layered (or multi-layered) gate line for the benefit of preventing the corrosion.

Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to form a first gate line formed at least partially directly on the first redundant gate line; a second gate line formed at least partially directly on the second redundant gate line for the benefit of preventing the corrosion.

Claim 9:

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- wherein the first and second redundant gate lines and the first and second contact electrodes are made of Mo, and the pixel electrode and the first and second gate lines are made of indium tin oxide (col. 7, lines 14-19)

Claim 10:

- wherein the insulating layer includes a first insulating layer (151) regionally formed around the first floating electrode (143) and a second insulating layer (152) regionally formed around the second floating electrode (144)

Claims 11 and 12:

- wherein the insulating layer (151, 152) covers the first and second redundant gate lines (141 has a protruding portion/input electrode 123 and 142 has a protruding portion/input electrode 124) and the first and second contact electrodes (191, 192)

Oh et al lack disclosure of the insulating layer has contact holes or cutout stripes exposing the first and second redundant gate lines, and the first and second gate lines are connected to the first and second redundant gate lines through the contact holes or cutout stripes.

It would have been obvious to one of ordinary skill in the art to have the gate lines and the redundant gate lines connected through the contact holes or cutout stripes of the insulating layer, at least for the benefit of obtaining more secure/contact between the two layers/two lines.

Thus, it does not patentably distinguish the invention.

***Allowable Subject Matter***

Claims 1-7 are allowed.

Claims 13 and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Reasons for allowance: There is no prior art of record that teaches or suggests a thin film diode array panel comprising a relationship of various elements as claimed with the specific allowable subject matter cited in the following claims:

Claim 1:

- first and second floating electrodes made of an opaque conductor, formed on the insulating substrate, and disposed between the first and second redundant gate lines
- an insulating layer formed on the first and second floating electrodes
- a first gate line formed at least partially directly on the first redundant gate line and including a first input electrode overlapping the first floating electrode wherein the insulating layer is interposed between the first input electrode and the first floating electrode and further wherein the insulating layer entirely covers lateral surfaces of the first floating electrode
- a second gate line formed at least partially directly on the second redundant gate line and including a second input electrode overlapping the second floating electrode wherein the insulating layer is interposed between the second input



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electrode and the second floating electrode and further wherein the insulating layer entirely covers lateral surfaces of the second floating electrode

Claims 13:

- wherein the insulating layer has a cutout disposed to overlap at least a portion of the main body of the pixel electrode

Claim 2-6 are allowed since they depend on the allowed claim 1.

Claim 14 is objected since it depends on the objected claim 13.

### ***Response to Arguments***

Applicant's arguments with respect to claims 8-12 have been considered but are moot in view of the new ground(s) of rejection.

### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to (Nancy) Thanh-Nhan P. Nguyen whose telephone number is 571-272-1673. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on 571-272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

-- June 15, 2009

TN

/David Nelms/

Supervisory Patent Examiner, Art Unit 2871